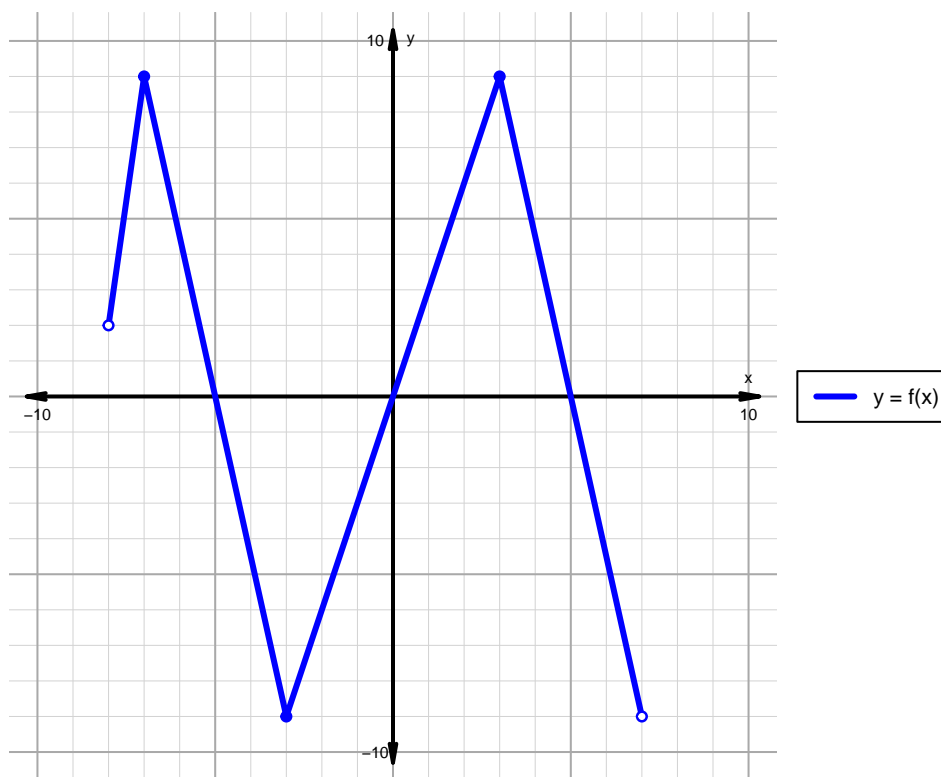


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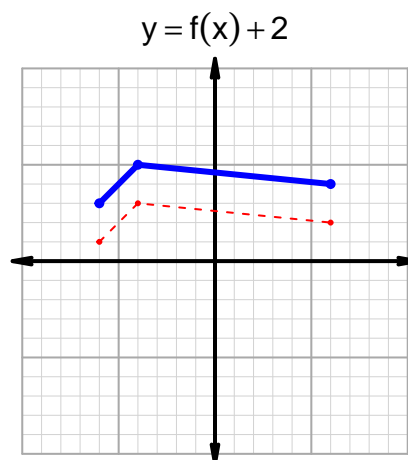
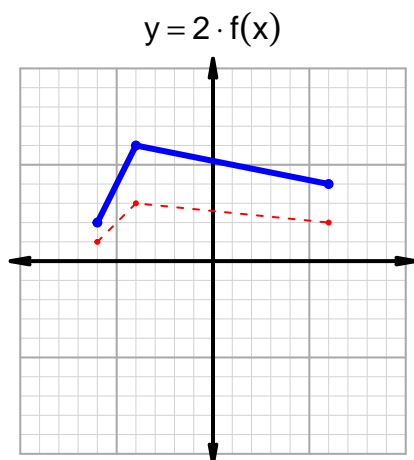
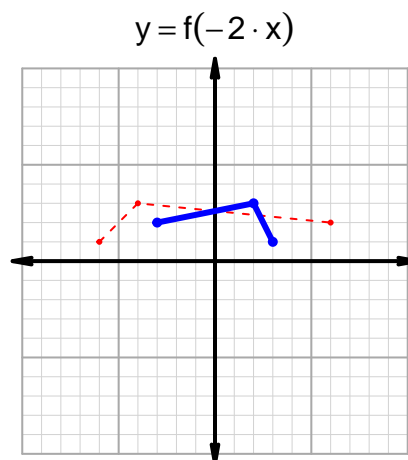
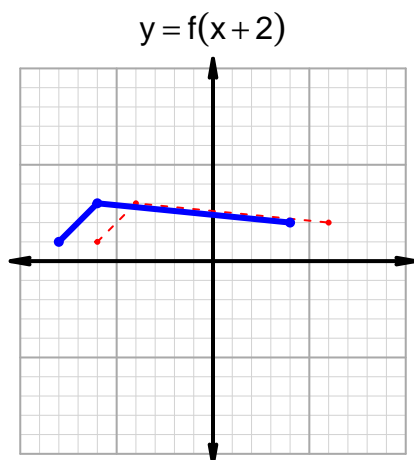
Intervals, Transformations, and Slope Solution (version 150)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-8, -5) \cup (0, 5)$
Negative	$(-5, 0) \cup (5, 7)$
Increasing	$(-8, -7) \cup (-3, 3)$
Decreasing	$(-7, -3) \cup (3, 7)$
Domain	$(-8, 7)$
Range	$(-9, 9)$

Intervals, Transformations, and Slope Solution (version 150)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 60$ and $x_2 = 81$. Express your answer as a reduced fraction.

x	$g(x)$
15	60
43	81
60	43
81	15

$$\frac{g(81) - g(60)}{81 - 60} = \frac{15 - 43}{81 - 60} = \frac{-28}{21}$$

The greatest common factor of -28 and 21 is 7. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-4}{3}$$